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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,874	04/11/2005	Gernot Moeschl	MERCK-2988	2266
23599	7590	11/24/2006	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			MATTHEWS, ABRAHAM M	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/530,874	MOESCHL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Abraham M. Matthews	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 04/11/2005.

2a)  This action is FINAL.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-12 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. \_\_\_\_ .  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/11/2005. 5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the nucleobases" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S Patent No. 3,728,329 to Yano et al.

Regarding Applicants' claim 1, Yano et al. disclose pearl essences prepared by use of at least one compound selected from nucleic acids and their relative nucleic compounds, which comprises crystallizing the nucleic compound from an aqueous solution thereof in the presence of ionic surface active agents, whereby uniform plate shaped (i.e., flake-form) crystals having smooth surface and pearl luster are produced more easily and in a higher yield than the conventional methods. (Yano et al., column 1, lines 28-33, column 2, lines 5-40 and column 6, lines 19 and 40).

Claim 1 defines the product by how the product was made. Thus, claim 1 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the

steps. See MPEP 2113. In the present case, the recited steps imply a structure of a nucleo base in the form of flake crystals. The reference suggests such a product.

The recitations of instant claims 11 and 12 can be found in Yano et al. at column 5, lines 51-58, and Examples 1,2,4-6, and 8.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-7, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,728,329 to Yano et al. as applied to claim 1 above.

Regarding Applicants' claims 2, 5 and 6, Yano et al. disclose a process for producing pearl essences by use of at least one compound selected from nucleic acids and their relative nucleic compounds, which comprises crystallizing the nucleic compound from an aqueous solution thereof in the presence of ionic surface active agents therein (Yano et al., column 1, lines 28-33). Yano et al. also disclose that the nucleic acids or their relative nucleic compounds used are nucleosides and/or nucleotides and their relative nucleic bases (Yano et al., column 2, lines 66-71, column 3, lines 1-50, and column 3, line 73 through column 4 line 33).

However, Yano et al. are silent about nucleosides and/or nucleotides reacting "enzymatically in one or more steps" as recited in Applicants' claim 2.

Nonetheless, Yano et al. further disclose that said nucleosides and/or nucleotides are easily obtained as intermediates in the production of nucleic acids or by chemical decomposition and/or enzymatic decomposition of said nucleic acids, salts and derivatives (Yano et al., column 3, lines 61-72, and column 4, lines 53-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used enzymes with nucleosides and/or nucleotides, as disclosed by Yano et al., in order to obtain pearl essence-analogous pearlescent pigments "easily" via an enzymatic reaction in order to reduce process steps and thereby reducing cost (Yano et al., column 4, lines 53-57).

The recitations of instant claims 3 and 4 can be found in Yano et al. at column 2, lines 66-68, column 3, lines 1-60, column 3, line 73 through column 4, line 57, and Examples 3, 4, and 6).

The recitations of instant claims 8 and 9 can be found in Yano et al. at column 1, lines 58-65, column 5, lines 35-45, and Examples 1-8 (as to claim 8) and Example 9 (as to claim 9).

Regarding Applicants' claim 7, Yano et al., as set forth above under rejection of claim 2, disclose a process for preparation of pearl essence. However, Yano et al. do not disclose a process for preparation of said pearl essence wherein enzyme or enzyme mixture is metered in with decreasing enzyme units in a plurality of steps as recited in Applicants' claim 7.

Nonetheless, the claimed procedural details for addition of said enzyme or enzyme mixture would have been obvious to one of ordinary skill in the art at the time of invention through routine experimentation with the goal of optimizing said process.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.Patent No. 3,728,329 to Yano et al. as applied to claims 1-9, and 11 and 12 above, and in further view of U.S. Patent No. 3,740,244 to Yano et al.

Yano et al. [329], as set forth above, disclose a process for the preparation of pearl essences. However, Yano et al.[329] are silent about a process for preparation of said pearl essences wherein dyes are additionally added, as set forth in Applicants' claim 10. However, Yano et al [244], in their later disclosure, disclose a process for producing colored pearl essences by adding water-soluble dyes into said process (Yano et al.[244], column 1, lines 15-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have added dyes into the pearl essence preparation process of Yano et al. [329], as taught by the later disclosure of Yano et al.[244], motivated by the fact that Yano et al.[244] disclose that when colored pearl essence crystals thus obtained were incorporated into a light-transmissible medium, they give a colored pearl essence composition which has such characteristics that the dye deposited on the crystal surfaces is not bled into the light-transmissible medium, and that the composition is free from various drawbacks which are possessed by iridescent pigments which have heretofore been known as a colored pearl essence (Yano et al.[244], column 1, lines 57-65, and column 2, lines 6-35).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abraham M. Matthews whose telephone number is (571) 272-2495. The examiner can normally be reached on M-F 8:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMM



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